



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,376	06/24/2003	Hui-Kai Chou	JCLA11125	4735
7590	09/17/2004		EXAMINER PAYNE, SHARON E	
J.C Patents, Inc. 4 Venture, Suite 250 Irvine, CA 92618			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 09/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/606,376	<b>Applicant(s)</b> CHOU ET AL.	
	<b>Examiner</b> Sharon E. Payne	<b>Art Unit</b> 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: 1) the word "genrally" should be "generally" in line 10 of page 1; and 2) the word "consume" should be "consuming" in line 12 of page 1. Appropriate correction is required.

### ***Claim Objections***

2. Claims 1-3 are objected to because of the following informality: the word "faces" should be "face" in line 4 of claim 1.

Claims 2-3 are necessarily included due to their dependency.

3. Claim 5 is objected to because of the following informality: the phrase "the electrodes" should be "electrodes" in line 1.

4. Claim 7 is objected to because of the following informality: the word "is" should be "are" in line 2.

5. Claim 8 is objected to because of the following informality: the word "is" should be "are" in line 2.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 2, 4, 5-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sano et al. (U.S. Patent 4,916,580) in view of JP 04033202 A (hereinafter "Amano").

Regarding claim 1, Sano et al. discloses a frame (reference number 4), at least a U-shaped lamp tube (reference number 3) positioned inside the frame (Fig. 1) and a diffusion plate (reference number 1) positioned inside the frame above the U-shaped lamp tube (Fig. 2). Sano et al. does not specifically disclose the position of the electrodes.

Amano discloses the U-shaped lamp tube having two electrodes (reference numbers 8a and 8b) that face the bottom section of the frame just underneath the U-shaped lamp tube (Fig. 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the electrode configuration of Amano in the apparatus of

Sano et al. to enable one to electrically connect the lamps below the frame. See Figs. 1 and 3 of Amano.

Concerning claim 2, Sano et al. discloses the module further comprising a reflecting plate (reference number 4) set on the bottom section of the frame (Fig. 2).

Regarding claim 4, Sano et al. discloses a frame (reference number 4) and a diffusion plate (reference number 1) positioned inside the frame above the lamp tube (Fig. 2). Sano et al. does not disclose a plurality of lamp tubes.

Amano discloses at least a lamp tube module positioned inside the frame (Fig. 2), wherein each lamp tube module comprises at least two U-shaped lamp tubes (Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the plurality of lamp tubes as shown in Amano in the apparatus of Sano et al. to provide more light.

Concerning claim 5, Sano et al. does not specifically disclose the position of the electrodes. Amano discloses the electrodes (reference number 8a and 8b) of the U-shaped lamp tube inside each lamp tube module facing the bottom section of the frame just underneath the lamp tubes (Fig. 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the electrode configuration of Amano in the apparatus of Sano et al. to enable one to electrically connect the lamps below the frame. See Figs. 1 and 3 of Amano.

Regarding claim 6, Sano et al. does not specifically disclose the position of the electrodes. Amano discloses the electrodes (reference number 8a and 8b) of the U-shaped lamp tube inside each lamp tube module facing of the side edges of the frame (Fig. 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Amano in the apparatus of Sano et al. to enable one to electrically connect the lamps from the side of the apparatus. See Fig. 4 of Amano.

Regarding claim 7, Sano et al. does not disclose a plurality of lamp tubes. Amano discloses the U-shaped lamp tubes within each lamp tube module being symmetrically positioned inside the frame (Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to position the lamp tubes as shown in Amano in the apparatus of Sano et al. to make the light emit in a symmetrical manner.

Concerning claim 8, Sano et al. does not disclose a plurality of lamps. Amano discloses the U-shaped lamp tubes within each lamp tube module being alternately positioned inside the frame (Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Amano in the apparatus of Sano et al. to avoid having gaps in light emission. See Fig. 2 of Amano.

Regarding claim 9, Sano et al. does not disclose a plurality of lamp tubes. Amano discloses the lamp modules forming an array inside the frame (Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Amano in the apparatus of Sano et al. to avoid having gaps in light emission. See Fig. 2 of Amano.

Concerning claim 10, Sano et al. does not disclose a plurality of lamp tubes. Amano discloses the lamp tube modules being laid down in columns inside the frame (Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Amano in the apparatus of Sano et al. to avoid having gaps in light emission. See Fig. 2 of Amano.

Regarding claim 11, Sano et al. discloses a reflecting plate (reference number 4) positioned on the bottom section of the frame (Fig. 2).

9. Claims 3 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Sano et al. in view of Amano as applied to claims 1 and 4 above, and further in view of Winston et al. (U.S. Patent 6,335,999).

Regarding claims 3 and 12, Sano et al. does not disclose optical plates being placed over the diffusion plate.

Winston et al. discloses a plurality of optical plates (reference numbers 214 and 216) placed over (on) the diffusion plate (reference number 213, Fig. 12N).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Winston et al. in the apparatus of Sano

et al. to process the light further after it exits the wedge layer. See Fig. 12N of Winston et al.


### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon E. Payne whose telephone number is (571) 272-2379. The examiner can normally be reached during regular business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sep

  
Sharon Payne  
Patent Examiner  
Technology Center 2800